SERIES

msi®

Notebook User's Manual

1

Preface

Content

1 Preface 1-1

Regulations and Statements 1-4

FCC-B Radio Frequency Interference Statement 1-4

FCC Conditions 1-4

CE Conformity 1-4

Battery Regulations 1-5

WEEE Statement 1-5

Japan JIS C 0950 Material Declaration 1-6

India RoHS 1-6

Turkey EEE regulation 1-6

Ukraine restriction of hazardous substances 1-6

Vietnam RoHS 1-6

Safety Instructions 1-7

MSI Highlights 1-9

Trademarks 1-10

Revision History 1-10

2 Introductions 2-1

Manual Map 2-2

Unpacking 2-2

Product Overview 2-3

Top-open View 2-3

Front Side View 2-6

Right Side View 2-8

Left Side View 2-10

Rear Side View 2-11

Bottom Side View 2-12

Specifications 2-13

3 How To Get Started 3-1

Begin to Use the Notebook 3-2

How to Use the Notebook Safely 3-3

How to Manage Power Supply 3-4

AC/DC Adapter 3-4

Battery Power 3-4

How to Set Up Power Plan in Windows 3-6
How to Use the Keyboard 3-8
Windows Key 3-8
Switch Display 3-8
Disable or Enable Touchpad 3-8
Enter Sleep Mode 3-9
Adjust the Brightness Levels of the Display 3-9
Adjust the Sound Levels of the Speakers 3-9
Adjust the Brightness Levels of the Keyboard Backlight LEDs 3-10
Quick Launch Keys 3-10
What is Touchpad 3-12
What is Hard Disk Drive 3-13
What is Solid State Drive 3-13
How to Connect the Internet 3-14
Wireless LAN 3-14
Wired LAN 3-16
How to Set Up Bluetooth Connection 3-20
Activating Bluetooth Connection 3-20
How to Connect External Devices 3-22
How to Use Multiple Monitors 3-23
How to Use RAID Function 3-24
How to Select Boot Mode in BIOS while installing OS 3-25
Where Are Key Components 3-26

Regulations and Statements

FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and radiates radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

NOTE

- The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Shield interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

CE Conformity

CE This device is in compliance with the essential safety requirements and other relevant provisions set out in the European Directive.

Battery Regulations

European Union: Batteries, battery packs, and accumulators should not be disposed of as unsorted household waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.

Taiwan: For better environmental protection, waste batteries should be collected separately for recycling or special disposal.

California, USA: The button cell battery may contain perchlorate material and requires special handling when recycled or disposed of in California.

For further information please visit: http://www.dtsc.ca.gov/hazardouswaste/perchlorate/

Safety Guideline for Using Lithium Battery

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

WEEE Statement

European Union: Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, which takes effect on August 13, 2005, products of "electrical and electronic equipment" cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment will be obligated to take back such products at the end of their useful life.

Japan JIS C 0950 Material Declaration

A Japanese regulatory requirement, defined by specification JIS C 0950, mandates that manufacturers provide material declarations for certain categories of electronic products offered for sale after July 1, 2006.

http://www.msi.com/html/popup/csr/cemm_jp.html

http://tw.msi.com/html/popup/csr_tw/cemm_jp.html

India RoHS

This product complies with the "India E-waste (Management and Handling) Rule 2011" and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1 weight % and 0.01 weight % for cadmium, except for the exemptions set in Schedule 2 of the Rule.

Turkey EEE regulation

Conforms to the EEE Regulations of the Republic Of Turkey.

Ukraine restriction of hazardous substances

The equipment complies with requirements of the Technical Regulation, approved by the Resolution of Cabinet of Ministry of Ukraine as of December 3, 2008 № 1057, in terms of restrictions for the use of certain dangerous substances in electrical and electronic equipment.

Vietnam RoHS

As from December 1, 2012, all products manufactured by MSI comply with Circular 30/2011/TT-BCT temporarily regulating the permitted limits for a number of hazardous substances in electronic and electric products.

Safety Instructions

Read the safety instructions carefully and thoroughly. All cautions and warnings on the equipment or user's manual should be noted.

Keep this equipment away from humidity and high temperature.

Lay this equipment on a stable surface before setting it up.

The openings on the enclosure are used for air convection and to prevent the equipment from overheating. Do not cover the openings.

- Do not leave the equipment in an unconditioned environment with a storage temperature above 60ºC (140ºF) or below 0ºC (32ºF), which may damage the equipment.
- This unit should be operated under maximum ambient temperature of 35ºC (95ºF).

- Make sure the power voltage is within safety range and has been adjusted properly to the value of 100~240V before connecting the equipment to the power outlet.
- Always unplug the AC power cord before installing any add-on card or module to the equipment.
- Always disconnect the AC power cord or uninstall the battery pack or switch off the wall socket if the equipment would be left unused for a certain time to achieve zero energy consumption.

Place the power cord in a way that people are unlikely to step on it. Do not place anything on top of the power cord.

Always keep the strong magnetic or electrical objects away from the equipment.

- To prevent explosion caused by improper battery replacement, use the same or equivalent type of battery recommended by the manufacturer only.
- Always keep the battery in a safe place.

When installing the coaxial cable to the TV Tuner, it is necessary to ensure that the metal shield is reliable connected to protective earthing system of the building.

Never pour liquid into the opening that could damage the equipment or cause an electrical shock.

If any of the following situations arises, get the equipment checked by a service personnel:

- The power cord or plug is damaged.
- Liquid has penetrated into the equipment.
- The equipment has been exposed to moisture.
- The equipment has not worked well or you can not get it work according to User's Manual.
- The equipment was dropped and damaged.
- The equipment has obvious signs of breakage.

Green Product Features

- Reduced energy consumption during use and stand-by
- Limited use of substances harmful to the environment and health
- Easily dismantled and recycled
- Reduced use of natural resources by encouraging recycling
- Extended product lifetime through easy upgrades
- Reduced solid waste production through take-back policy

Environmental Policy

- The product has been designed to enable proper reuse of parts and recycling and should not be thrown away
- Users should contact the local authorized point of collection for recycling and disposing of their end-of-life products.

MSI Highlights

Explore more about MSI highlights at http://www.msi.com and https://www.youtube.com/user/MSIGamingGlobal

Refer to the Notebook Software Application Manual for detailed instructions.

SteelSeries Engine only in MSI GAMING notebook

MSI collaborates with SteelSeries to develop an exclusive SteelSeries Engine in gaming notebooks. SteelSeries Engine is the Apps to combine all frequent functions for gamers in multiple devices management.

MSI GAMING Notebook is the first gaming Notebook featuring XSplit Gamecaster live stream app!

MSI gaming notebook features XSplit Gamecaster, the easiest live streaming and recording solution for gamers. See the basic tutorial of Xsplit Gamecaster.

Sound by Dynaudio on MSI Gaming Notebooks

MSI partners with Dynaudio, the Danish sound specialists, in its gaming notebooks to present you an authentic fidelity audio performance.

Trademarks

- All trademarks are the properties of their respective owners.
- THX and THX TruStudio Pro are trademarks of THX Ltd. which may be registered in some jurisdictions. All rights reserved.
- Sound Blaster® is registered trademark of Creative Technology Ltd.

Revision History

- Version: 1.0
- Date: 04, 2015

Notebook User's Manual

SERIES

msi®

2

Introductions

Congratulations on becoming an user of this notebook, the finely designed notebook. You will have a delightful and professional experience in using this exquisite notebook. We are proud to tell users that this notebook is thoroughly tested and certified by our reputation for unsurpassed dependability and customer satisfaction.

Manual Map

This User's Manual provides instructions and illustrations on how to operate this notebook. It is recommended to read this manual carefully before using this notebook.

Chapter 1, Preface, gives users the basic safety information and caution that is interrelated to using this notebook.

Chapter 2, Introductions, gives the brief introductions to the notebook, including overviews, function buttons, quick launch buttons, connectors, LEDs, etc.

Chapter 3, How to Get Started, gives the basic operation instructions to help users getting familiar with this notebook.

Unpacking

First, unpack the shipping carton and check all items carefully. If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packing materials in case you need to ship the unit in the future. The package should contain the following items:

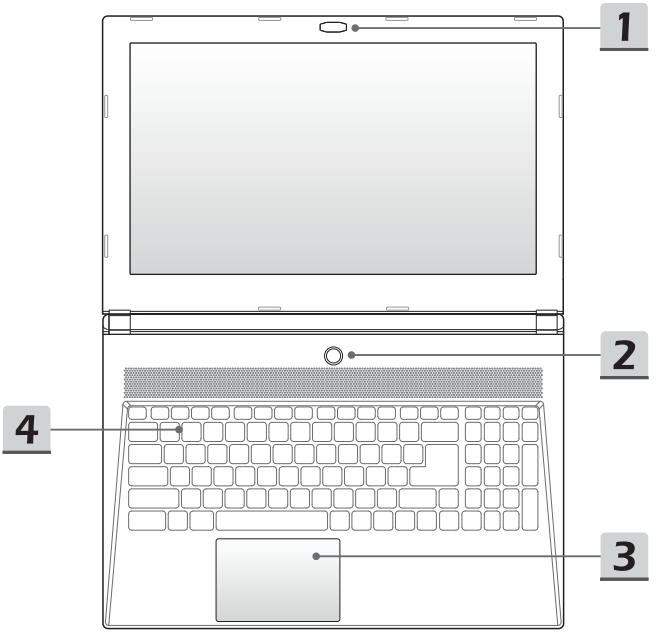
- Notebook
- Quick Start Guide
- AC/DC adapter and AC power cord
- Carry bag (optional)
- All-in-one application disk, containing the full version of user's manual, drivers, utilities, and optional recovery function (optional)

Product Overview

This section provides the description of basic aspects of the notebook. It will help you to know more about the appearance of this notebook before using it. Please be aware that the figures shown here are for reference only.

Top-open View

The figure of top-open view and description shown below will lead you to browse the main operating area of your notebook.



1. **Webcam/ Webcam LED/ Internal Microphone**
   - This built-in webcam can be used for picture taking, video recording or conferencing, and any other interactive applications.
   - Webcam LED indicator, next to the webcam, glows when webcam function is activated; LED goes out when this function is turned off.
   - The built-in microphone and its function is the same with microphone.
2. **Power Button / Power LED / GPU Mode LED**

Power	**Power Button** • Use this button to turn the notebook power ON and OFF. • Use this button to awake the notebook from the sleep state. **Power LED/ GPU Mode LED** • Glowing blue when the notebook power is turned on, and the UMA GPU mode is selected. • Glowing amber when the optionally supported discrete GPU mode is selected. • LED goes off when the notebook is turned off.

3. **Touchpad**

   This is the pointing device of the notebook.

4. **Keyboard**

   The built-in keyboard provides all the functions of a full-sized keyboard.

   Quick Launch [Fn] Keys

   Use the [Fn] keys on the keyboard to activate the specific applications or tools.

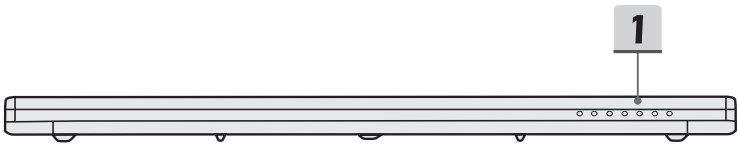
   With the help of these keys, users will be able to do work more efficiently.

   The following keys will only be functional in the operating system with the SCM application installed.

User Defined	• Press and hold the **Fn** key, and then press the **F4** key to launch the **User Defined** application.
ECO Engine (Power Saving)	• Press and hold the **Fn** key, and then press the **F5** key repeatedly to switch among various power saving modes provided by **ECO Engine**, or to turn this function off recurrently.

Webcam	• Press and hold the **Fn** key, and then press the **F6** key to turn the **Webcam** function on. Press again to turn it off.
Shift	• Press and hold the **Fn** key, and then press the **F7** key to switch among **Sport / Comfort / Green** modes and shift the performance. • This function will only be activated when AC Power is plugged-in, and the default setting is Sport mode.
Airplane mode	• Press and hold the **Fn** key, and then press the **F10** key repeatedly to turn **Airplane mode** on or off recurrently. • For flight safety consideration, it is always recommended to turn Airplane mode on when you are in flight. • Refer to the Airplane mode switch icon under [**Start/ Settings/ Change PC Settings/ Network / Airplane mode]** on the desktop to check the device status.
True Color	• This notebook may be pre-installed the **True Color** application. With this application, users can select various color settings for the best viewing experience. • Press and hold the **Fn** key, and then press the **Z** key to launch the True Color application.
True Color Selections	• Press and hold the **Fn** key, and then press the **A** key to change different view modes.

Front Side View



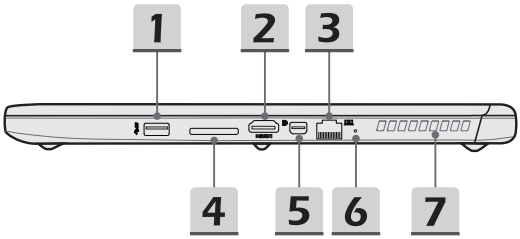
1. Status LED

	Sleep State • LED blinks when the system is in Sleep state. • LED goes out when the system is turned off.
	Drive Activity Indicator LED blinks when the system is accessing the internal storage drives.
1	**Num Lock:** LED glows when the Num Lock function is activated.
A	**Caps Lock:** LED glows when the Caps Lock function is activated.
	Bluetooth (optional) • LED glows when **Bluetooth** function is enabled. • LED goes out when this function is disabled.
	Wireless LAN (WiFi) • LED glows when **Wireless LAN (WiFi)** function is enabled. • LED goes out when this function is disabled.

Battery Status

- LED glows when the battery is being charged.
- Continuously blinking if the battery fails and it is recommended to replace a new battery.
- Consult the local dealer for purchasing an equivalent type of battery recommended by the manufacturer.
- Battery LED goes out when it is fully charged or when the AC/DC adapter is disconnected.

Right Side View



1. **USB 3.0 Port/ Super Charger USB Port**

   USB 3.0, the SuperSpeed USB, delivers the higher interface speeds for connecting various devices, such as storage devices, hard drives, or video cameras, and offers more advantages over high-speed data transferring.

   Super Charger USB port provides faster power charging function for Apple devices when the notebook is in power off mode.

2. **HDMI Connector**

   HDMI (High Definition Multimedia Interface) is a new interface standard for PCs, displays and consumer electronics devices that supports standard, enhanced and high-definition video, plus multi-channel digital audio on a single cable.

3. **RJ-45 Connector**

   The 10/100/1000 Ethernet connector is used to connect a LAN cable for network connection.

4. **Card Reader**

   The built-in card reader may support SD (Secure Digital) and MMC (Multi-Media Card). Contact the local dealer for further and correct information and be noted that the supported memory cards may vary without notice.

5. **Mini-DisplayPort**

   The Mini-DisplayPort is a miniaturized version of the DisplayPort, with a suitable adapter, the Mini-DisplayPort may be used to drive displays with a VGA, DVI or HDMI interface.

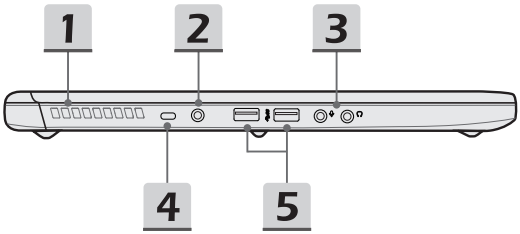
6. Battery Reset Hole

Whenever the system firmware (EC) is upgraded or the system hangs, please 1) power off the notebook; 2) connect the AC power; 3) use a straightened paperclip to insert this hole and reset the notebook; 4) power on the notebook.

7. Ventilator

The ventilator is designed to cool the system. DO NOT block the ventilator for air circulation.

Left Side View



1. **Ventilator**

   The ventilator is designed to cool the system. DO NOT block the ventilator for air circulation.

2. **Power Connector**

   This connector is to connect the AC/DC adapter and supply power for the notebook.

3. **Audio Port Connectors**

   Make high quality sound blaster with stereo system and Hi-Fi function supported.

   Microphone

   Used for an external microphone.

   Headphone

   A connector for speakers or headphones.

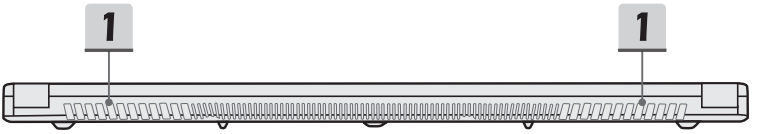
4. **Kensington Lock**

   This notebook provides a Kensington lock hole, which allows users to secure the notebook in place with a key or some mechanical PIN device and attached through a rubberized metal cable. The end of the cable has a small loop which allows the whole cable to be looped around a permanent object, such as a heavy table or other similar equipment, thus securing the notebook in place.

5. **USB 3.0 Port**

   USB 3.0, the SuperSpeed USB, delivers the higher interface speeds for connecting various devices, such as storage devices, hard drives, or video cameras, and offers more advantages over high-speed data transferring.

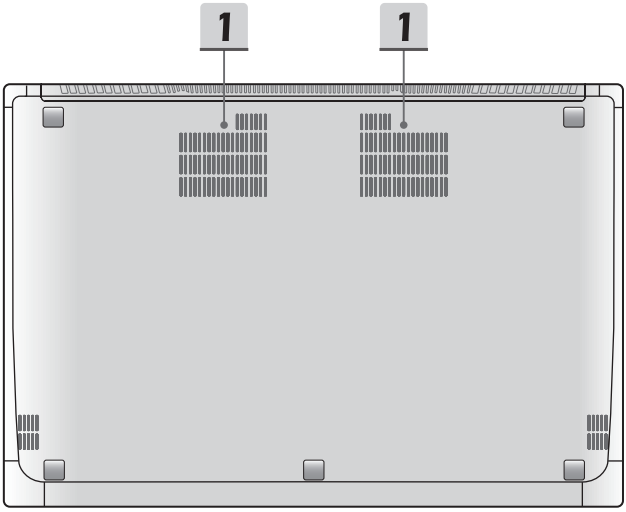
Rear Side View



1. Ventilator

The ventilator is designed to cool the system. DO NOT block the ventilator for air circulation.

Bottom Side View



1. Ventilator

The ventilator is designed to cool the system. DO NOT block the ventilator for air circulation.

Specifications

The specification may change without notice. The actual products sold are different from areas. Please check the detailed specification with your local dealers.

Physical Characteristic	
Dimension	390 (W) x 266 (D) x 20.05 (H) mm
Weight	2.2 kg (with 6-cell battery)
CPU	
Socket	BGA-1364pin
Processor Type	Intel® Haswell Quad Core processor
TDP	47W
Core Chip	
PCH	Intel® Lynx Point HM8 series
Memory	
Technology	DDR3L 1333/ 1600 MHz
Memory	SO-DIMM slots x 2
Maximum	up to 16GB
Power	
AC/DC Adapter (1) (optional)	150W, 19.5V Input: 100~240V 50~60Hz Output: 19.5V ⎓ 7.7A ⊖-●-⊕
AC/DC Adapter (2) (optional)	120W, 19.5V Input: 100~240V 50~60Hz Output: 19.5V ⎓ 6.15A ⊖-●-⊕
Battery Type	6-cell
RTC Battery	Yes
Note	This unit should be operated under maximum ambient temperature of 35°C (95°F).

Storage (items listed here may very without notice)	
HDD form factor	2.5" HDD
SSD (optional)	M.2 SSD
I/O Port	
USB	x 3 (version 3.0)
Mic-in	x 1
Headphone-out	x 1 (S/PDIF-Out supported)
RJ45	x 1
HDMI	x 1
Mini-DisplayPort	x 1
Card Reader	x 1 (SD/ MMC) The supported memory cards may vary without notice.
Communication Port	
LAN	10/ 100/ 1000Mb Ethernet
Wireless LAN	Supported
Bluetooth	Supported
Display	
LCD Type (optional)	15.6" Full HD display 4K display
Brightness	Controlled by K/B hot-keys
Video	
Graphics	• NVIDIA® GeForce® discrete graphics + Intel HD graphics UMA • With NVIDIA® Optimus™ supported
VRAM	Based on GPU structure

HDMI output	Supported
DisplayPort output	Supported
Multi-Display Function	Supported
WebCam	
FHD CMOS Camera	Supported
Audio	
Internal Speaker	4 speakers
Sound Volume	Adjusted by keyboard hot-key and switches.
Software & BIOS	
USB Flash Boot	USB floppy and USB flash boot up DOS
BIOS	Fast Boot Support
Others	
Compatibility	WHQL
Kensington Lock Hole	x 1

Notebook User's Manual

SERIES

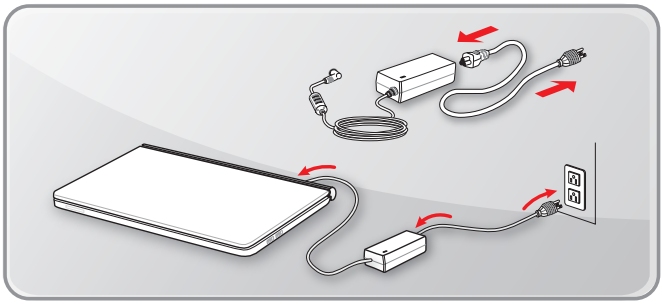
msi®

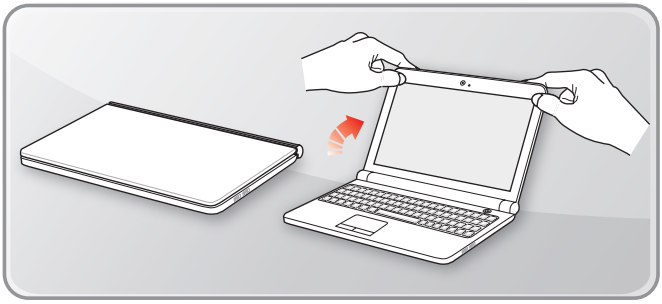
3

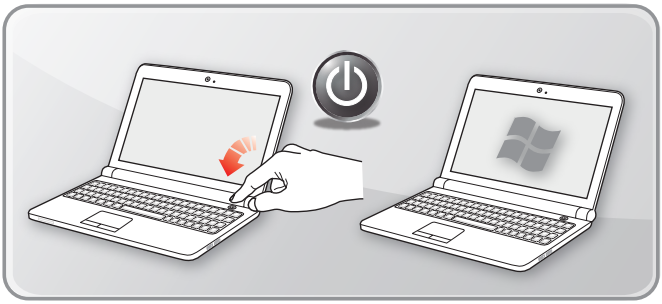
How To Get Started

Begin to Use the Notebook

For a new user of this notebook, we would like to suggest you follow the illustrations below to begin to use the notebook.



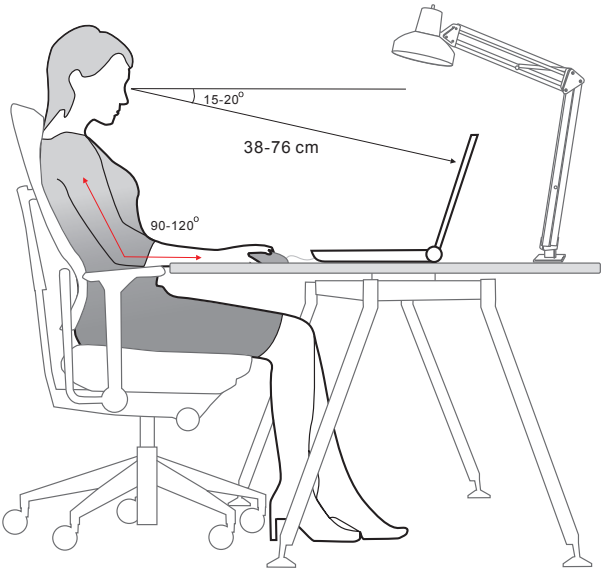




How to Use the Notebook Safely

If you are a beginner to the notebook, please read the following instructions to assure your own safety, and make yourself comfortable during the operations.

- Your work area should have enough illumination.
- Choose an ergonomic chair and have it adjusted for your height.
- Adjust the backrest to support your lower back comfortably when you are sitting upright.
- Place your feet flat on the floor with your knees bent to a 90 degrees.
- Adjust the angle/position of the LCD panel to have an optimal view.
- Use your notebook where you find easy to stay more comfortable position.
- Change your sitting posture often.
- Stretch and exercise your body regularly.
- Remember to take a break after working for a period of time.



How to Manage Power Supply

This section provides users basic safety precautions to take when using an AC/DC adapter and battery power properly.

AC/DC Adapter

To safely and properly power on a notebook, it is strongly recommended to connect the supplied power adapter before turning it on for the first time. Below are some Do's and Don'ts of an AC/DC adapter.

- DOs
  - Use the adapter that shipped with your notebook only.
  - Always be aware of heat coming from the in use AC/DC adapter.
  - Consult the dealer or an experienced radio TV technician for help.
- DON'Ts
  - Use other adapter of other brand since it may damage the notebook or devices attached to it.
  - Cover an in-use adapter since it can generate heat.

Battery Power

This notebook is equipped with a high-capacity Li-Polymer battery pack. The rechargeable Li-Polymer battery pack is an internal power source of the notebook. Be aware of that this battery pack may not be replaced by users.

- **Conserving Battery Power**

  Efficient battery power is critical to maintain normal operation. If the battery power is not managed well, the saved data and customized settings may be lost. To optimize battery life and avoid a sudden power loss, read the tips below:
  - Suspend system operation if the system will be idle for a while or shorten the suspend timer’s time period.
  - Turn off the system if you won’t be using it for a period of time.
  - Disable unnecessary settings or remove idle peripherals.
  - Connect an AC/DC adapter to the system whenever possible.

▸ **Charging the Battery Pack**

The battery pack can be recharged while it is installed in the notebook. Please pay attention to the following tips before recharging the battery:

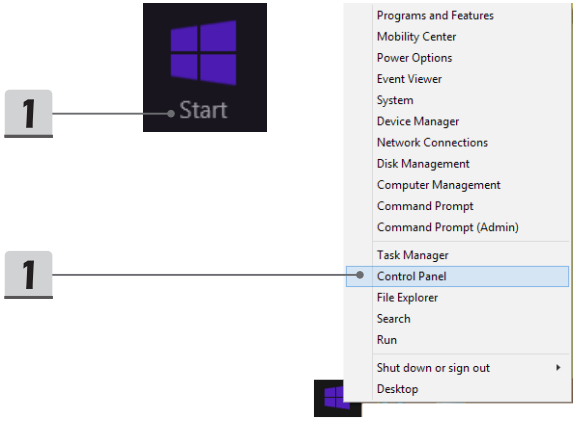
- If a charged battery pack is not available, save your work and close all running programs and shut down the system.
- Plug in an external AC/DC adapter.
- You can use the system, suspend system operation or shut down and turn off the system without interrupting the charging process.
- The Li-Polymer battery has no memory effect. It is unnecessary to discharge the battery before recharging. However, to optimize the life of battery, we suggest that consuming the battery power completely once a month is necessary.
- The actual charging time will be determined by the applications in use.

How to Set Up Power Plan in Windows

Below steps show you how to save battery power for your notebook by using a power-saving plan. Follow the instructions below to adjust the power management settings in Windows OS:

Power Options in Windows OS allows you to control the power management features of your display, hard drive, and battery.

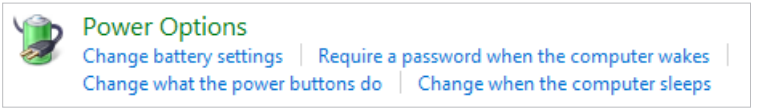
1. Drag the mouse cursor to the left corner of the screen and [Start] icon will show up. Right click the icon to show selection menu. Select [Control Panel] in the menu.
2. Click [System and Security].
3. Click [Power Options].
4. Then select a power plan that meets your personal needs.
5. The Power icon will present options. You can wake up your computer from power saving mode by clicking the power button.



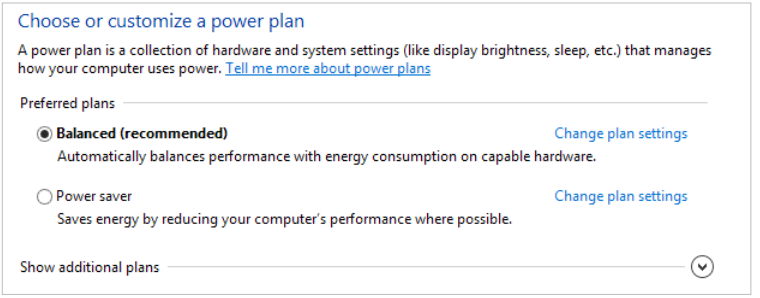
2

System and Security
Review your computer's status
Save backup copies of your files with File History
Find and fix problems

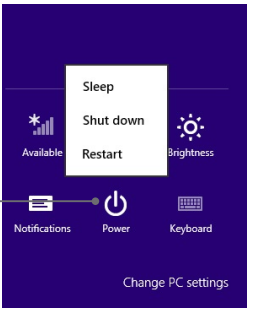
3


Power Options
Change battery settings
Require a password when the computer wakes
Change what the power buttons do
Change when the computer sleeps

4

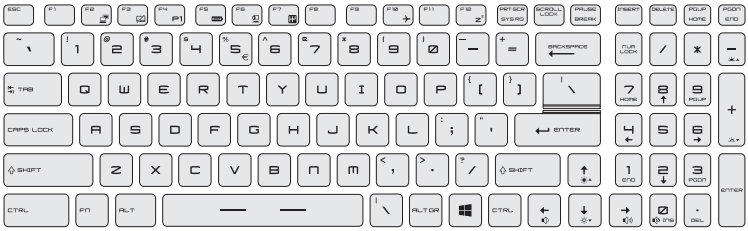

Choose or customize a power plan
A power plan is a collection of hardware and system settings (like display brightness, sleep, etc.) that manages how your computer uses power. Tell me more about power plans
Preferred plans
Balanced (recommended)
Change plan settings
Automatically balances performance with energy consumption on capable hardware.
Power saver
Change plan settings
Saves energy by reducing your computer's performance where possible.
Show additional plans

5


Sleep
Shut down
Restart
Available
Brightness
Notifications
Power
Keyboard
Change PC settings

How to Use the Keyboard

This notebook provides a full functioned keyboard. To ensure that the keyboard will be functional properly, it is recommended to have the SCM application installed in your operating system.



Windows Key

You can find the Windws Logo key on the keyboard which is used to perform Windows-specific functions, such as opening the Start menu and launching the shortcut menu.

Switch Display

Switch the display output mode between the LCD, external monitor and both.

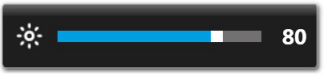
Disable or Enable Touchpad

Enable or disable the touchpad function.

Enter Sleep Mode

Force the computer into sleep state (depending on the system configuration). Press the Power button to wake up the system from sleep state.

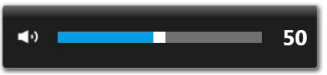
Adjust the Brightness Levels of the Display



Increase the LCD brightness.

Decrease the LCD brightness.

Adjust the Sound Levels of the Speakers

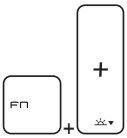


Increase the built-in speaker's volume.

Decrease the built-in speaker's volume.

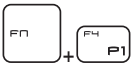
Mute the built-in speakers.

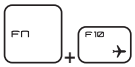
Adjust the Brightness Levels of the Keyboard Backlight LEDs

	Increase the brightness level of the keyboard backlight LEDs.
	Decrease the brightness level of the keyboard backlight LEDs.

Quick Launch Keys

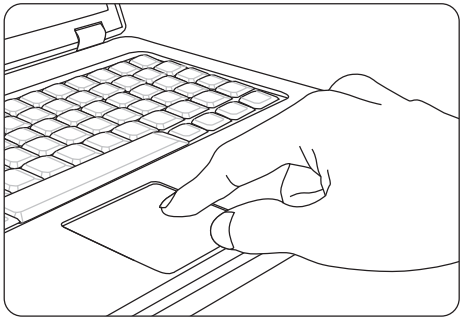
Use the [Fn] combination keys on the keyboard to activate the specific applications or tools. With the help of these keys, users will be able to do work more efficiently.

 **User Defined**	• Press and hold the **Fn** key, and then press the **F4** key to launch the **User Defined** application.
ECO Engine (Power Saving)	• Press and hold the **Fn** key, and then press the **F5** key repeatedly to switch among various power saving modes provided by **ECO Engine**, or to turn this function off recurrently.
Webcam	• Press and hold the **Fn** key, and then press the **F6** key to turn the **Webcam** function on. Press again to turn it off.
Shift	• Press and hold the **Fn** key, and then press the **F7** key to switch among **Sport / Comfort / Green** modes and shift the performance. • This function will only be activated when AC Power is plugged-in, and the default setting is Sport mode.

 **Airplane mode**	• Press and hold the **Fn** key, and then press the **F10** key repeatedly to turn **Airplane mode** on or off recurrently. • For flight safety consideration, it is always recommended to turn Airplane mode on when you are in flight. • Refer to the Airplane mode switch icon under [**Start/ Settings/ Change PC Settings/ Network / Airplane mode]** on the desktop to check the device status.
True Color	• This notebook may be pre-installed the **True Color** application. With this application, users can select various color settings for the best viewing experience. • Press and hold the **Fn** key, and then press the **Z** key to launch the True Color application.
True Color Selections	• Press and hold the **Fn** key, and then press the **A** key to change different view modes.

What is Touchpad

The touchpad integrated in your notebook is a pointing device that is compatible with standard mouse, allowing you to control the notebook by pointing the location of the cursor on the screen.



- Configuring the Touchpad

  You can customize the pointing device to meet your personal needs. For example, if you are a left-handed user, you may want to swap the functions of the two buttons. In addition, you can change the size, shape, moving speed and other advanced features of the cursor on the screen.

  To configure the touchpad, you can use the standard Microsoft or IBM PS/2 driver in your Windows operating system. The Mouse Properties in Control Panel allows you to change the configuration.

- Positioning and Moving

  Place your finger on the touchpad (usually using the forefinger), and the rectangular pad will act as a miniature duplicate of your display. When you move your fingertip across the pad, the cursor on the screen will move simultaneously to the same direction. When your finger reaches the edge of the pad, lift your finger and place it on a proper location of the touchpad to continue the movement.

- Point and Click

  When you have moved and placed the cursor over an icon, a menu item or a command that you want to execute, simply tap slightly on the touchpad or press the left button to select. This procedure, called as point and click is the basics of operating your notebook. Unlike the traditional pointing device such as the mouse, the whole touchpad can act as a left button, so that your each tap on the touchpad is equivalent to pressing the left button. Tapping twice more rapidly on the touchpad is to execute a double-click.

- Drag and Drop

  You can move files or objects in your notebook by using drag-and-drop. To do so, place the cursor on the desired item and slightly tap twice on the touchpad, and then keep your fingertip in contact with the touchpad on the second tap. Now, you can drag the selected item to the desired location by moving your finger on the touchpad, and then lift your finger from the touchpad to drop the item into place. Alternately, you can press and hold the left button when you select an item, and then move your finger to the desired location; finally, release the left button to finish the drag-and-drop operation.

What is Hard Disk Drive

This notebook is equipped with a large-capacity 2.5" HDD. It is usually used to install the operating system and software applications. Do not remove or install the hard disk drive when the notebook is turned on. The replacement of HDD should be operated by an authorized retailer or a service representative.

What is Solid State Drive

This notebook may be equipped with a Solid State Drive (SSD). The solid state drive is a storage device that stores data on solid state flash memory. Do not remove or install the SSD when the notebook is turned on. The replacement of SSD should be operated by an authorized retailer or a service representative.

How to Connect the Internet

Wireless LAN

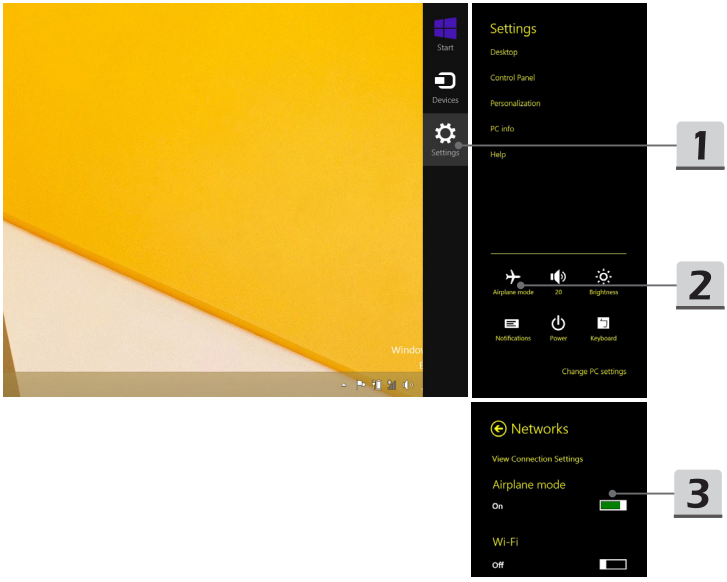
Wireless LAN is a wireless broadband connection that allows you to connect to the internet without using any cables. Please follow the instructions below to set up a Wireless LAN connection.

- Turning Airplane mode off

  For flight safety consideration, it is always recommended to turn Airplane mode on when you are in flight. When Airplane mode is enabled, Wireless LAN connection and Bluetooth will be turned off. Please make sure turning Airplane mode off before setting up Wireless LAN connection.

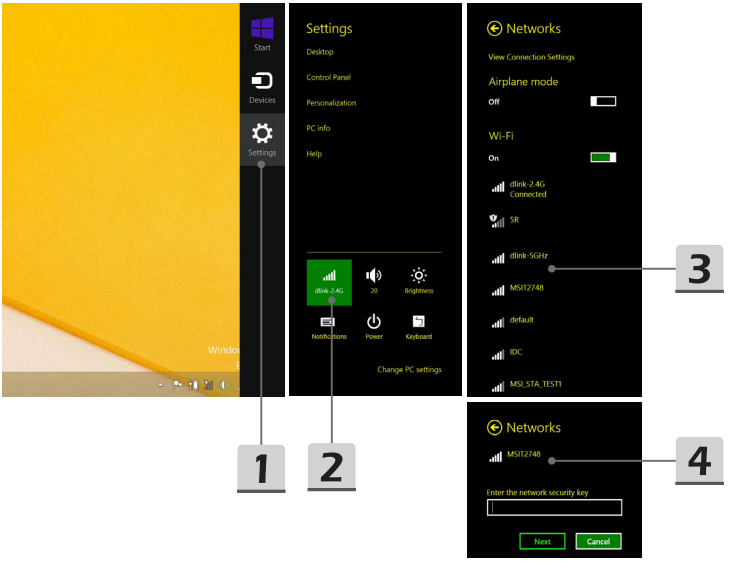
  Go to the desktop. (Please launch **Desktop** if you are in Win 8 Start screen.)

  1. Find the [Settings] icon on the desktop and click on it.
  2. Select [Airplane mode].
  3. Unfold [Airplane mode] selections under [Networks]. Make sure [Airplane mode] is set to off here.



- Setup Wireless LAN

1. Unfold the setting menu by pointing the mouse to the lower-right corner of the desktop and clicking it.
2. Click the [Wireless LAN] icon.
3. Select a Wireless LAN connection from the network list.
4. A security key will be required for connecting the selected network. Then click [Next].



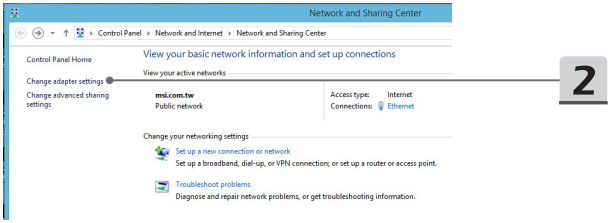
Wired LAN

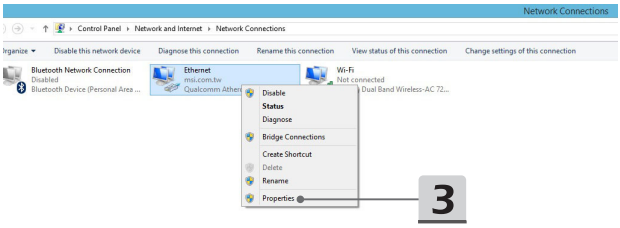
Using cables and network adapters to connect to the internet.

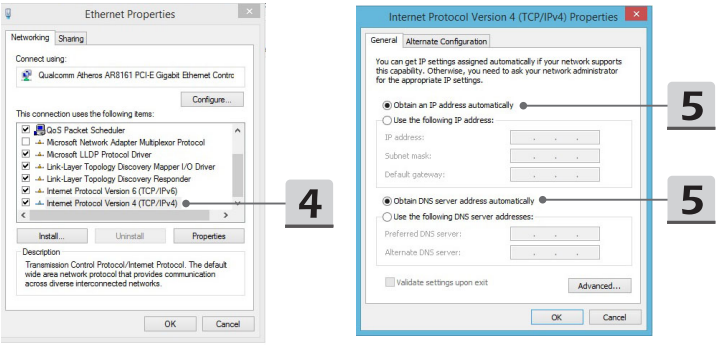
- Setup Dynamic IP/PPPoE connection

  Go to the desktop (Please launch **Desktop** if you are in Win 8 Start screen)

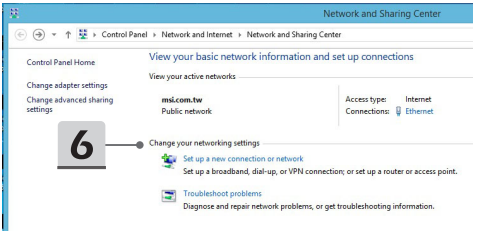
  1. Point your mouse cursor to the LAN icon in the taskbar, and then right click to select [Open Network and Sharing Center].
  2. Choose [Change adapter settings].
  3. Right click on [Ethernet] to select [Properties] from the drop-down menu.
  4. In the Ethernet Properties window, select [Networking] tab and check [Internet Protocol Version 4 (TCP/IPv4)]. Then click [Properties] to continue.
  5. Select [General] tab, click [Obtain an IP address automatically] and [Obtain DNS server address automatically]. Then click [OK].

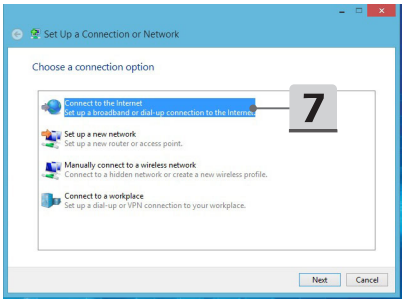

Network and Sharing Center
Control Panel › Network and Internet › Network and Sharing Center
Control Panel Home
View your basic network information and set up connections
View your active networks
Change adapter settings
Change advanced sharing settings
msi.com.tw
Public network
Access type: Internet
Connections: Ethernet
Change your networking settings
Set up a new connection or network
Set up a broadband, dial-up, or VPN connection; or set up a router or access point.
Troubleshoot problems
Diagnose and repair network problems, or get troubleshooting information.
2

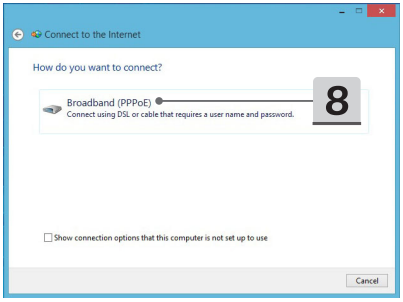


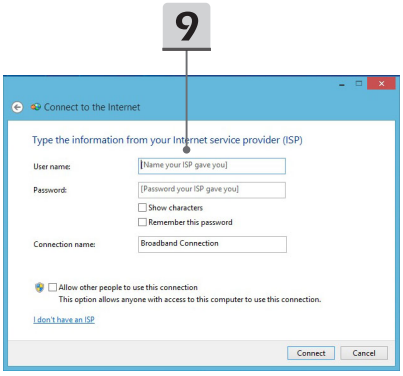


6. Repeat step 1 to launch [Network and Sharing Center] again. Select [Set up a new connection or network] under [Change your networking settings].
7. Choose [Connect to the Internet], and then click [Next].
8. Click [Broadband (PPPoE)].
9. Fills User name, Password, and Connection name fields. Then click [Connect].


Network and Sharing Center
Control Panel
Network and Internet
Network and Sharing Center
Control Panel Home
Change adapter settings
Change advanced sharing settings
View your basic network information and set up connections
View your active networks
msi.com.tw
Public network
Access type: Internet
Connections: Ethernet
6
Change your networking settings
Set up a new connection or network
Set up a broadband, dial-up, or VPN connection; or set up a router or access point.
Troubleshoot problems
Diagnose and repair network problems, or get troubleshooting information.

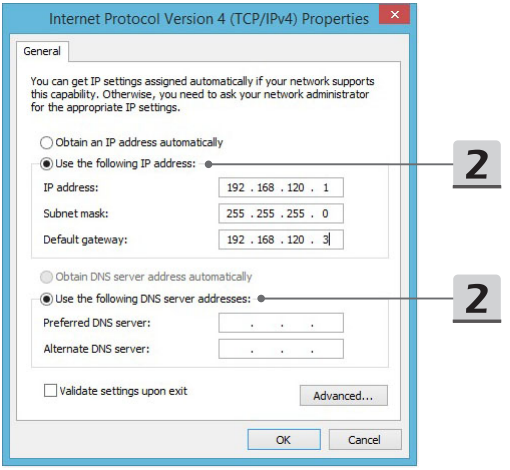

Set Up a Connection or Network
Choose a connection option
Connect to the Internet
Set up a broadband or dial-up connection to the Internet.
Set up a new network
Set up a new router or access point.
Manually connect to a wireless network
Connect to a hidden network or create a new wireless profile.
Connect to a workplace
Set up a dial-up or VPN connection to your workplace.
Next
Cancel
7


Connect to the Internet
How do you want to connect?
Broadband (PPPoE)
Connect using DSL or cable that requires a user name and password.
Show connection options that this computer is not set up to use
Cancel
8


9
Connect to the Internet
Type the information from your Internet service provider (ISP)
User name:
[Name your ISP gave you]
Password:
[Password your ISP gave you]
Show characters
Remember this password
Connection name:
Broadband Connection
Allow other people to use this connection
This option allows anyone with access to this computer to use this connection.
I don't have an ISP
Connect
Cancel

- Setup a static IP internet connection

1. Follow the previous steps 1 to 4 in [Setup Dynamic IP/PPPoE Connection].
2. Select [General] tab and click [Use the following IP address] and [Use the following DNS server addresses]. You will be asked to enter the IP address, Subnet mask, and Default gateway into the empty place , then click [OK].


Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 120 . 1
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
192 . 168 . 120 . 3
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel
2
2

How to Set Up Bluetooth Connection

Bluetooth pairing is a process in which two Bluetooth enabled devices communicate with each other through an established connection.

Activating Bluetooth Connection

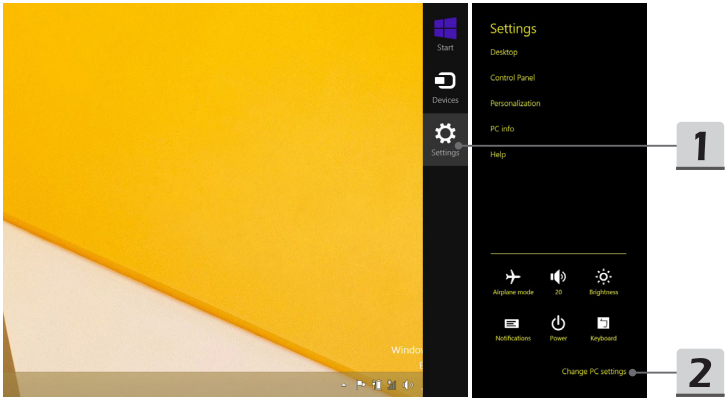
- Turning Airplane mode off

  Refer to the previous Wireless LAN section to turn Airplane mode off before activating Bluetooth connection.

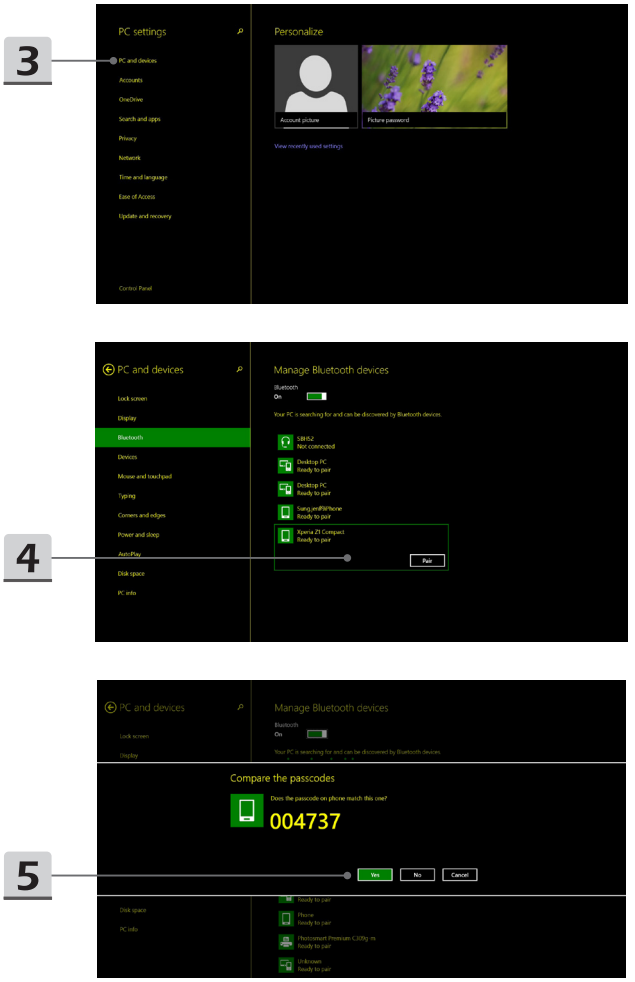
- Pairing Bluetooth devices

  Go to the desktop. (Please launch **Desktop** if you are in Win 8 Start screen.)

  1. Point your mouse to the lower-right corner of the screen to bring the taskbar, then click [Settings].
  2. Select [Change PC settings] .



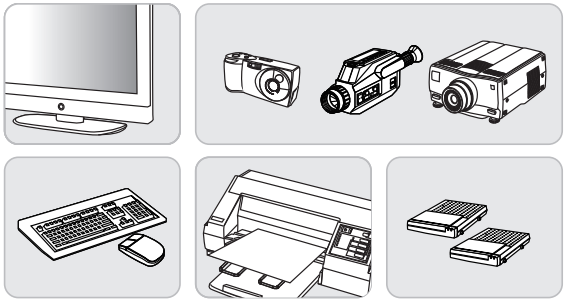
3. Click "PC and devices" from the PC settings list.
4. Choose a desired Bluetooth device from the connection list, and then click [Pair] to continue.
5. Match the passcode between the notebook and the selected Bluetooth device, click [yes] to finish.

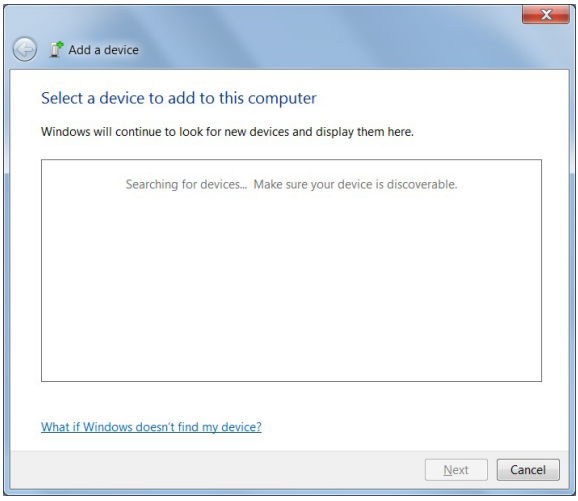


How to Connect External Devices

This notebook may equipped with various connecting I/O (input/output) ports, such as USB, HDMI, DisplayPort, and mini DisplayPort. Users will be able to connect diverse peripheral devices to the notebook.

To connect these devices, refer to the instruction manuals of each device first, and then connect the device to the notebook. This notebook is capable to auto detect the exteranl devices connected, and if there is no detection of the devices, please manually enable the devices by going to [Start Menu / Control Panel / Hardware and Sound / Add a device] to add the new devices.




Add a device
Select a device to add to this computer
Windows will continue to look for new devices and display them here.
Searching for devices... Make sure your device is discoverable.
What if Windows doesn't find my device?
Next
Cancel

How to Use Multiple Monitors

If users connect an additional monitor to the notebook, the system will automatically detect the external monitor connected. Users will be allowed to customize the display settings.

1. Connect the monitor to the notebook.
2. Press and hold the Windows key, and then press [P] key to bring up [Display Settings].
3. Select a desired mode
   - PC screen only: shows the desktop on the monitor of the notebook only.
   - Duplicate: the desktop will be displayed on the monitor of the notebook and the external monitor connected.
   - Extend: Extends the desktop across all of the monitors connected. This option is useful if users want to increase the desktop area.
   - Second screen only: shows the desktop on the external monitor connected only.

How to Use RAID Function

This notebook may support RAID technology of different levels. RAID allows users to store data on multiple hard disk drives or solid-state drives. Contact the local dealer for further and correct information and be noted that the supported RAID functions may vary depending on the models users purchased.

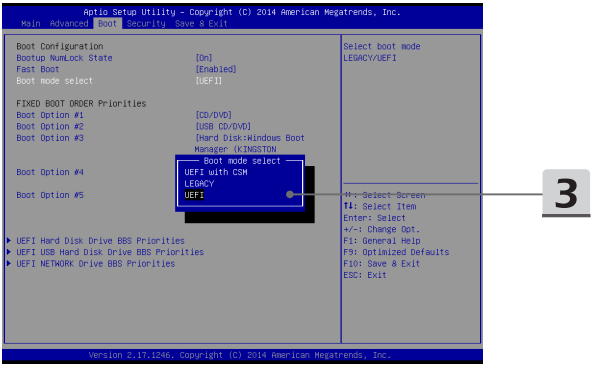
To set up RAID, follow the instructions below:

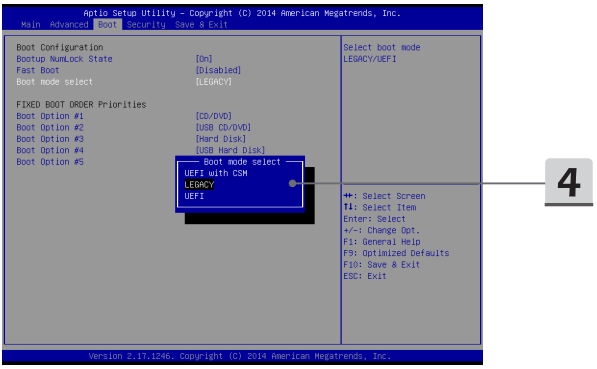
1. Create a recovery disk with the Recovery Image Backup Tool that comes with the package of the notebook. Users may find the shortcut of BurnRecovery on the Start Screen or Windows desktop.
2. Assemble SSDs or HDDs with exactly the same capacity and brand. Make sure you have proper skills to do the assembly of SSDs or HDDs or you can contact an authorized service center for further assistance.
3. Go to BIOS page, selecct [RAID] for the SATA Mode in Advanced tab; and select [Legacy] for the Boot Mode in Boot tab .
4. Watch the instruction video at: https://www.youtube.com/watch?v=ArvWkGG_yu8&index=2&list=PLTPGJNsY3U4wiHm-QI989ved86Mq0Wi4o

YouTube youku

How to Select Boot Mode in BIOS while installing OS

1. Power on the system. As soon as the first logo screen appears, press the DEL key immediately and enter the BIOS menu.
2. Move the cursor to [Boot] tab, and select [Boot mode select] in Boot Configuration.
3. For operating systems support UEFI-based BIOS (Windows 8 and Windows 8.1), it is suggested to select [UEFI].
4. For Windows 7 or previous versions of Windows, select [Legacy] mode.





Where Are Key Components

In this section you will find information about main parts inside a notebook, some may be upgradable or replaceable depending on the model purchased.

Don't try to upgrade your device yourself as unauthorized replacements may void your warranty. To obtain service, please contact a local authorized service center.

1. HDD
2. Memory
3. M.2 SSD
4. Bluetooth/ WiFi combo card